Genie
HD CCTV

MODEL: SDI57HY

Hybrid Portable Test Monitor

User Manual

Precautions

- Always handle the unit with care to avoid damaging the LCD display panel. Damage caused by physical shocks is not covered by the product warranty.

- Avoid getting fingerprints on the screen. To clean the screen, wipe it with a clean, soft and dry towel, being careful not to damage the LCD display panel.

- To reduce the risk of fire or electric shock, do not expose the LCD to rain or moisture.

- Do not connect power to the video input/output ports. It will cause a malfunction.

- Only use the approved battery charger included in the package – a fire may be caused if a non unapproved charger is used (if the red LED flickers during recharging, request after sales service).

- The built-in Li-Polymer battery (11.1V / 2200mA) has a six month warranty - effective from the purchase date. Do not use any another type of battery on this portable monitor as it may cause a fire or explosion.

- The battery could be damaged if a short circuit is present at the connecting port, or if the polarity of the power cable is reversed.

- When supplying power to the camera via the test monitor, always use the enclosed power harness (DC Jack).

- When supplying power, connect the power cable to the camera and then apply power. Otherwise, a short circuit might be induced which automatically switches the unit off to protect the battery. If a short is produced, turn the monitor off, remove and re-insert the power harness (DC Jack). Then turn the unit on again.

- Keep the unit inside the carry bag to protect the LCD screen from scratches.

- Do not put the monitor on, or near, anything electrically conductive or expose the unit to rain or moisture.

- Immediately switch the product off if it emits smoke, makes an abnormal noise or emits strange odours.

- If the unit is not working properly, please contact your distributor. Please do not disassemble the unit yourself as it will invalidate the warranty.

1. Introduction

Overview
The SD157HY is a multi-functional Analogue / HD-SDI / HDMI portable test monitor. It can be used for various purposes, including checking video signals, adjusting camera angle of view and focusing, supplying power to camera and controlling a speed dome camera.

Features
- 7-Inch Wide TFT-LCD Digital LED Backlit Panel
- Various inputs: HD-SDI (3G), HDMI (1080 p60), VGA (1600 x1200), CVBS
- PTZ control via RS-485 communication for speed dome cameras
- Coaxial communication (Up the Coax). Controls camera OSD menu/PTZ over coax cable (Max. 800m on RG6)
- Supply power to the camera (DC12V / 500mA)
- HD-SDI, HDMI Embedded Audio Output with Speaker
- Leather bag and strap
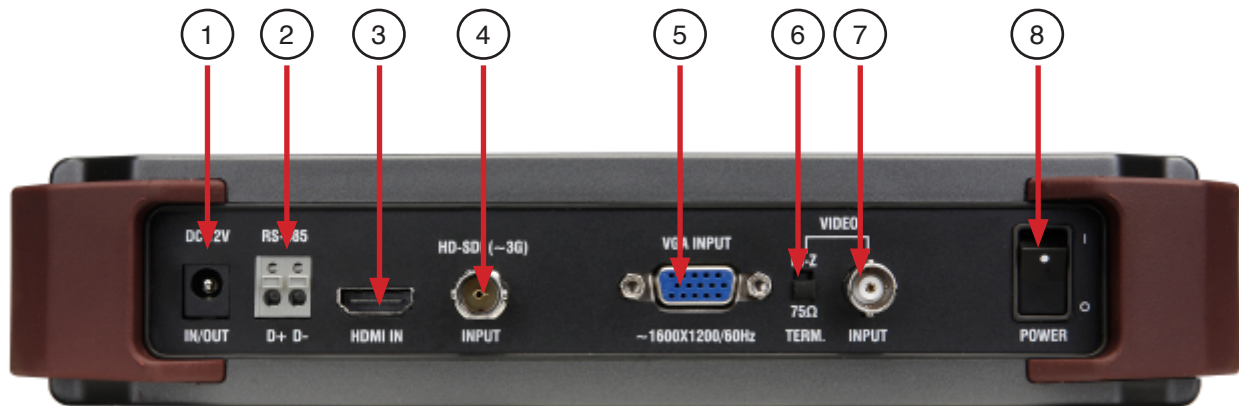- Li-Polymer battery (3 hours of use)

Applications
- Display video signals or adjust camera angles.
- Check speed dome cameras, PTZ camera status or control PTZ.
- Control the OSD menu of a camera which supports coax communication.
- Check HD-SDI, HDMI Signals.
- Check the distance at which HD-SDI Repeaters & Receivers should be installed.
- Check DVR VGA outputs
- Test and install POC (Power over Coax) Camera (HD-SDI, CVBS) (Optional)

2. Components

Main Unit	Leather Bag & Shoulder Strap	Accessories	
		Charger & Power Cord	Power Harness

3. Product Parts and Peripheral Device Connection

Part Names and Functions

No.	Marking		Function
1	DC12V		Charge the Built-In Li-Polymer Battery (with Included Charger) or, Supply Power to the Camera (DC12V/500mA) via Power Harness.
2	RS-485		RS-485 Communication for PTZ Receiver and Speed Dome Camera
3	HDMI INPUT		HDMI Signal Input (Max. 1920 x 1080p60Hz)
4	HD-SDI	INPUT	HD-SDI Signal Input (Max. Resolution : ~3G) Power Output (When Using Power Over Coax Feature)
5	VGA INPUT		UXGA Input (Max. Resolution: 1600 x1200)
6	VIDEO	TERM	With Loop Through Output: HI-Z Position
7		INPUT	CVBS Video Signal Input Coaxial Communication: PTZ Receiver or Speed Dome Camera Power Output (When Using Power Over Coax Feature)
8	POWER		Power Switch (ON/OFF)

Buttons for Each of the Functions

HDMI
16:9
1920 x 1080p60

(1) Menu Operation Buttons

Button	Camera Menu	RS-485 & Coax Mode	Angle Guide	Video Input
MODE		PTZ&OSD Mode Switch		Source Change
EXIT		Operate in PTZ Mode	Angle Mode Out	Zoom In (Analogue)
MENU		Operate in OSD Mode		Menu ON
ESC		Operate in OSD Mode		Menu OFF
Multi-Way Key	Up, Down, Right, Left	Pan/Tilt/Zoom/ Focus	Up, Down, Right, Left	
ENTER Key	ENTER		Select Bar	

(2) Video Status
- Input Mode: HD-SDI, HDMI, VGA, CVBS
- Display Mode: 4:3, Full (16:10), 16:9, Zoom1, Zoom2
- Input Resolution: 1920 x 1080p60 , NTSC , PAL

(3) Battery Status
- There are seven steps indicating battery status.   090%   070%   050%

Connection Diagram

※ Only use the included power harness cable when supplying power to a camera.

HD-SDI Input
- Connect to HD-SDI camera / output the power to camera using power over coax feature (Input data bitrate: ~3G).

Analogue Video Input
- Connect to Analogue Camera
- Output the power (DC12V/500mA) to camera using power over coax feature.
- Using Coax communication feature (Coaxitron), it is possible to control the camera OSD menu or a PTZ Speed Dome camera via coaxial cable.

VGA Input
- Connect to DVR or Computer and UXGA is supported at maximum resolution; higher resolutions may not be displayed normally.

HDMI Input
- Connect to DVR, Computer or other device which outputs HDMI signal (Resolution: ~1080p 60Hz).

PTZ & OSD Control Through RS-485
- Connect to PTZ Receiver and/or Speed Dome Camera as a controller. Also, connect to controller as a PTZ receiver to check if the controller outputs data accurately.

※ Power over coax feature (Video+Power) for Analogue VP camera and VP transmission devices.
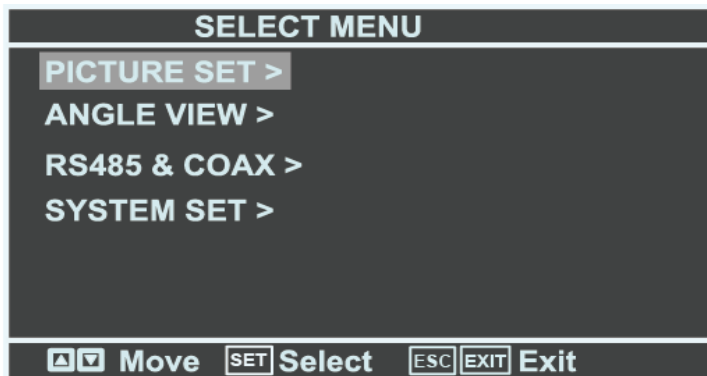
- Using the Power Over Coax feature of the Hybrid Test monitor, it's possible to supply power to VP (Video+Power) analogue cameras via coaxial cable.

- **Power Over Coax feature for Analogue VP camera (Optional):** When it's necessary to use the Power POC (Power Over Coax) feature, for installation and maintenance of an analogue VP camera or other VP Transmission product, press and hold the 'Enter' key for 3 seconds or more, and the VP feature is activated; after detecting if the device automatically supports the POC feature.
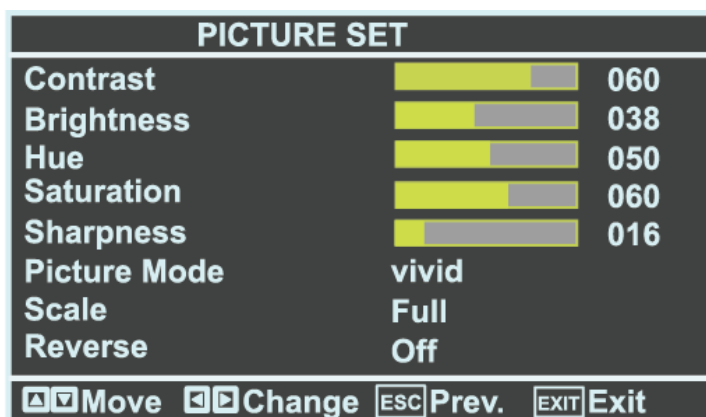
4. Menu Setting

SELECT MENU
- Press MENU Button and main menu is displayed, as shown below.
- Press the directional buttons to move Up▲, Down▼, Right▶ or Left◀.

The menu mode is automatically switched off if you don't press any buttons for a few minutes.

PICTURE SET

- Contrast: To adjust the contrast range (0 ~ 100 steps)
- Brightness: To adjust the brightness (0 ~ 100 steps)
- Hue: To adjust the colour (0 ~ 100 steps)
- Saturation: To adjust the chroma (0 ~ 100 steps)
- Picture Mode: Standard > Movie > Vivid > User
  The value of each mode changes automatically
- Scale: To adjust the screen ratio (Full > 4:3 > Zoom1 > Zoom2 > 16:9)
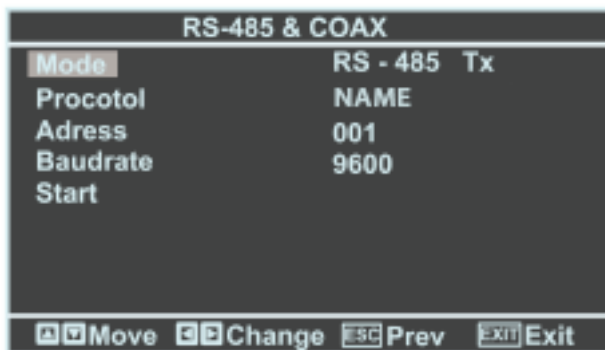- Reverse: To reverse the upper and lower sides of the LCD screen.

ANGLE MODE
Indication lines: To adjust the viewing angles based on a specific area.

- Selecting ANGLE MODE displays a green box and the camera angle zone indication lines.
- Press the SET MENU button to select the size of the green box. Press the SET MENU button again and select the side lines of the box you want to adjust, and press the ▲ / ▼ / ▶ / ◀ buttons to set the position of each line.
- To exit ANGLE MODE, press the EXIT KEY.

RS485 & COAX MODE (PTZ / OSD Control)

- MODE: In RS-485 Tx and COAX mode you can control the PTZ & Camera OSD. In Rx. mode, it receives the PTZ control data (as HEX values) and displays the data on the monitor. In Analyser mode, it analyses the protocols received through the RS-485 port and displays the HEX value and command.
- PROTOCOL: To select the protocol of the equipment which you want to control.
- ADDRESS: To select the address of the equipment which you want to control.
  ※ **In COAX mode, you can control the camera regardless of the address**
- BAUDRATE: To select the communication speed (2400, 4800, 9600, 19200, 38400).
  ※ **In COAX mode, you can control the camera regardless of the baud rate**
- START: To start controlling the device after setting all the above menus.
- EXIT: To exit from MENU MODE

※ Built-in Protocols:

No.	Company	Protocol	Product Model
01	DONGYANG UNITECH (OSD)	D-MAX	DSC-300S/270S/230S Series (High Speed PTZ Dome Camera) DOH-240S Series (Speed PTZ Dome Camera) DPC-200 (Mini PTZ Dome camera) DRX-500, DRX-502A (CCTV PTZ receiver)
02	DONGYANG ELECTRONICS	DY-255RXC	DY-255RXC
03	FINE SYSTEM	FineSystem	CRR-1600i/s
04	INTER-M	VRX-2201	VRX-2201
05	HONEYWELL (OSD)	Honeywell	HRX-2000, ScanDome-II
06	LG MultiX (OSD)	LG MultiX	LPTEP551PS/ EI551PS/OS551HQ/OI551HQ/OI511HQ
07	LG LPT-A100L	LG LPT-A100	LPT-A100L
08	PANASONIC (OSD)	PanasonicC	CS600, CS650, CS564, CS85X,…
09	PANASONIC	PanasonicN	CS564CS854/A,…
10	GENIE	Pelco-D	Genie ASD, Genie NSD
11	GENIE	Pelco-P	Genie ASD, Genie NSD
12	SAMSUNG ELECTRONICS (OSD)	Samsung	SCC-641/3/07,…, SCC-64x Series
13	SAMSUNG TECHWIN (OSD)	Techwin	SPD-xxxx Series
14	SUNGJIN	Sungjin	RECEIVER/MPU
15	SYSMANIA	Sysmania	ORX-1000
16	VICON	Vicon Stn	V1311RB,V1310RB, V1200R-LM, etc. receivers
17	VICON	Vicon Ext	Surveyor Dome Series
18	IKEGAMI	Ikegami35	PCS-35
19	IKEGAMI	Ikegami358	PCS-358
20	NEW BORN HIGHTECH	NEWBORN	
21	TOKINA	TOKINA DMP	
22	ERNITEC (OSD)	ERNA	BDR-51x,BDR-55x,BDR-575,ICU
23	BOSCH	Bosch OSRD	Receiver/Drivers, G1, G2, G3, VEZ, and G4 Series AutoDomes
24	GSP SYSTEMS	CYBERSCAN1	
25	HITRON	Fastrax II	Fastrax II (HID-2404)
26	YUJIN SYSTEMS	Yujin Sys.	EPT-5000S/6000S
27	DYNACOLOR DSCP	Dyna. DSCP	dynacolor DH801, DH701 and DH600
28	LADON	Ladon	
29	HANIL STM	MCU-1200N	MCU-1200N, 1400N, 1500N
30	LILIN_MLP2	LILIN_MLP2	
31	LILIN_FastDome	LILIN Fast	
32	AMERICAN DYNAMICS		AD SpdDome

The protocols marked with '(OSD)' are available to controlling CAMERA OSD Menu.

RS-485 (TX)

Mode	Protocol	Address	Baudrate
Rs-485 Tx	NAME	001	9600

▲▼Tilt ◄►Pan [SET] PT/ZF [MODE]PTZ/OSD [EXIT]Prev

- Displays the current setting mode at the top of the screen.
- Press SET KEY in MULTI WAY KEY selection to select PAN/TILT or ZOOM/FOCUS mode.
  - RED: P.T.Z MODE - BLUE: OSD MODE
- Press the Mode KEY to select CAMERA OSD control mode.
- Press the MENU KEY to control CAMERA OSD and press the ESC KEY to exit OSD MENU.
- In case of BOX/DOME Camera, hold the ENTER KEY to select the OSD Menu.
- Press EXIT KEY to go to the previous mode
- (in CAMERA OSD mode, switch to PAN/TILT mode first, in order to exit).
- Press ▲ / ▼ / ► / ◄ buttons following the OSD guidance on the screen.
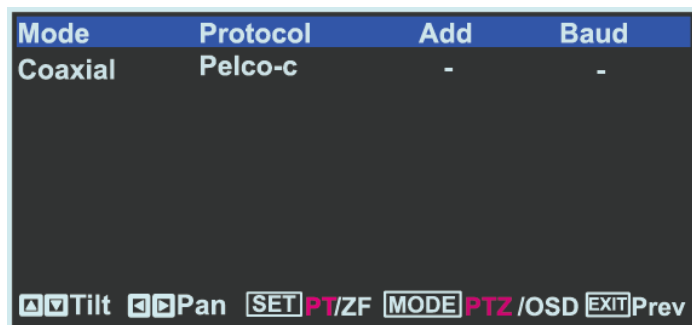
※ Caution
- The Hybrid Test monitor has two different PELCO-D Protocols, which are PELCO-D PROTOCOL and PELCO (CNB).
- For PELCO-D PROTOCOL, it is possible to enter the camera OSD menu by using MENU key. (SET PRESET COMMAND)
- For PELCO (CNB) PROTOCOL, it is possible to enter the camera OSD menu by using MENU key (Go to PRESET) or ESC key (Run PRESET)
- Depending on the camera manufacturer, the command to enter the camera OSD Menu is different.

RX

Mode	Protocol	Add	Baud
Rs-485 Rx	-	-	9600
00 11 22	....		

▲▼Baudrate [SET][ESC]Clear [EXIT]Prev

- Displays the current setting mode at the top of the screen.
- Displays the connection status of the RS-485 line indicated by a HEX value.
- The received data via the RS-485 port is displayed as a maximum in 8 lines in bytes (16 byte).
- When the data is more than 128 byte, it's cleared out automatically. You can also clear it out temporarily, using the ESC button.
- To go to the previous menu, press the EXIT button.

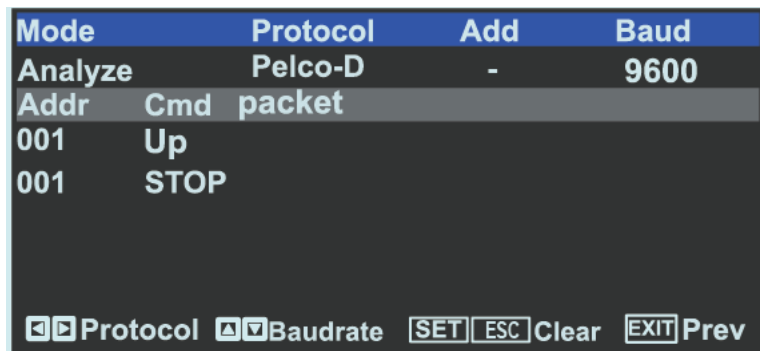## COAX [UP THE COAX] Control

- Displays the current setting mode at the top of the screen.
- Press the SET KEY in MULTI WAY KEY selection to select PAN/TILT mode or ZOOM/FOCUS mode.
  - RED: P.T.Z MODE   - BLUE: OSD MODE
- Press the Mode KEY to select the CAMERA OSD control mode.
- Press the MENU KEY to control the CAMERA OSD, and the ESC KEY to exit OSD MENU.
  For BOX/DOME Cameras, Hold the ENTER KEY to select OSD Menu
- Press the EXIT KEY to go to the previous mode. In CAMERA OSD mode, switch to PAN/TILT mode first in order to exit.
- Press ▲ / ▼ / ► / ◄ buttons following the OSD guidance on the screen.
- List of controllable models

No.	Company	Protocol	Product Model
01	Samsung Techwin	PELCO-C	All models to support COAX communication (WINNER 5)
02	Pelco	PELCO-C	All models to support COAX communication
03	Dongyang Unitech	PELCO-C	All models to support COAX communication (PIXIM)
04	Samsung E	A1	All models to support COAX communication

※ PELCO-C PROTOCOL in Hybrid Test monitor is compatible with all the product models above. Also, this product can control COAX in a remote side through the automatic NTSC/PAL recognition without any set-up.
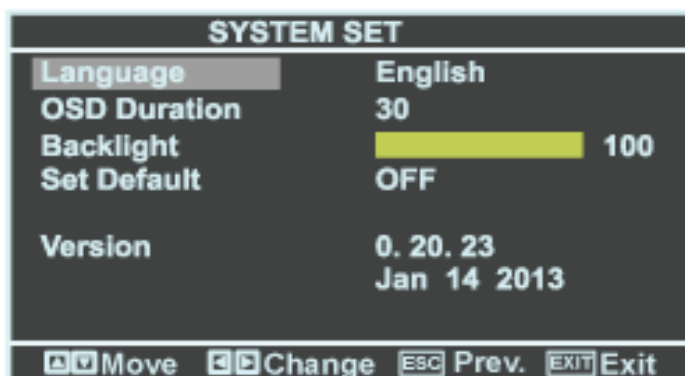

ANALYSER

- Using Analyser mode, the test monitor recognises the received data packet and displays the address and command.

- Addr: Show the address.
- Cmd: Show the command
- Packet: Show the Hex code of the received data.

SYSTEM SET

- To set the System

- Language: KOR / ENG / JAP / RUS
- OSD Dwell Time: To set the time to turn the monitor menu OFF
- BACK LIGHT: To adjust the brightness of the LED Monitor.
- Setting Initialisation: To initialise all settings.
- Version: To display the product Firmware version and the date.

5. Specification

			SD157HY Hybrid Test Monitor	
LCD	DISPLAY RESOLUTION		1024 x 600 (RGB)	
	SIZE		7 inch (Diagonal)	
	PIXEL PITCH		0.15mm (H) x 0.15mm (V)	
	BRIGHTNESS (cd)		Typ: 250	
	CONTRAST RATIO		Typ: 500	
	Viewing Angle	Horizontal	75°	
		Vertical	75°	
	RESPONSE (ms)		35	
VIDEO	INPUT	HDMI	~1080p 60	
		HD-SDI	~3G	
		CVBS	NTSC/PAL 1.0Vp-p	
		XVGA	Max. 1600 x 1200, 60Hz	
CONNECT PORT	HDMI INPUT		HDMI C Type F	
	HD-SDI INPUT		BNC-F	
	VGA INPUT		D-SUB 15-Pin RIGHT ANGLE TYPE	
	CVBS VIDEO INPUT		BNC-F	
	RS-485		Pan/Tilt/Zoom/Focus Control	OSD Control
POWER	INPUT		DC12.6V (exclusive Adapter included)	
	OUTPUT		DC12V	
COLOUR			Dark Grey	
BATTERY			2x Li-Polymer: 11.1V, 2200mA (protection circuit applied)	
POWER CONSUMPTION	With HDMI input		6.5W	
	With HD-SDI input		7.5W	
	With VGA Input		6.5W	
	With CVBS Input		6.5W	
TEMPERATURE			0°C ~ +50°C	
HUMIDITY			0% ~ 80%	
WEIGHT			SET : 920g , BAG : 640g Total : 1.6kg	
DIMENSIONS (W x H x D) (Excluding the bag)			240.9 x 153.4 x 50 mm	

Genie
HD CCTV